# PISO-6
## Intelligent Isolator Module

**PROTECTWELL**

## Description

PISO-6 intelligent isolator module is a bus addressable module.

The module has isolation function, in the bus system automatic fire alarm system, once a short circuit occurred within the loop, the intelligent isolator module in the circuit will automatically isolate part of the faulty circuit segment in the loop line, and to ensure that the other devices in the loop circuit system can still function normally. When the fault is repaired, the isolation module will automatically restore back to normal blinking, and the isolated loop will return back to the normal monitoring state.

The LED indicator of the module is blinking when it is working normally, and steady on when a fault is detected and been isolated.

The module adopts bi-directional non-polarity wiring design, which is convenient for on-site wiring.

## Specifications

**Rated Voltage:** DC24V.

**Standby Current:** 150µA@DC24V.

**Action Current:** 13mA@DC24V.

**Operating Temperature:** -10ºC ~ 55ºC.

**Operating Humidity:** 5% ~ 95%RH Non-condensing.

**Dimension:** 85mm×85mm×35mm (Including base).

**Weight:** 55g.

**Software Version:** A.

## Terminal Description

PISO-6 intelligent isolator module is used with M600-4T terminal base for PMM-6/PISO-6, and its wiring terminals are defined as follows:

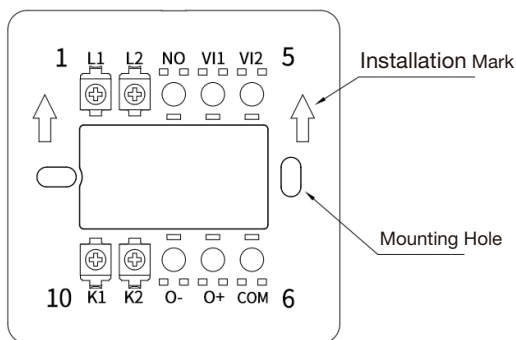| L1、L2 | Communication line in/out (Figure 2, Figure 3) |
|--------|-----------------------------------------------|
| K1、K2 | Communication line in/out (Figure 2, Figure 3) |



Figure 1: M600-4T Terminal Base for PMM-6/PISO-6

## Power Supply and Wiring

### Power supply instruction

The design of the system is determined by calculated number of isolator modules allowed in the loop according to the load capacity of the controller or power supply, ensuring that the sum of the current consumed by all devices in the loop does not exceed the load capacity of the controller or power supply. In the loop calculation, it is necessary to consider the voltage drop caused by the resistance of the line.

### Resistance of general wiring sizes

$$1.0 \text{ mm}^2 \; 19.5Ω/1000m$$

$$1.5 \text{ mm}^2 \; 13.3Ω/1000m$$

$$2.5 \text{ mm}^2 \; 7.98Ω/1000m$$

For example, if there are 10 devices in a certain area and each device needs 10mA, connect them with 1.5mm² lines of 2000m (total line length = line length in operation + line length returned), and the current at the end of the line is 10mA, then: Number of devices x terminal current x (total length of lines x wire resistivity) = voltage drop, 10 x 10 mA x (2000m x 13.3 ohms /1000m) $\approx$ 2.7V

### Wiring

PISO-6 intelligent isolator module is used with M600-4T terminal base, wiring as shown in Figure 2 or Figure 3.

Communication Line In
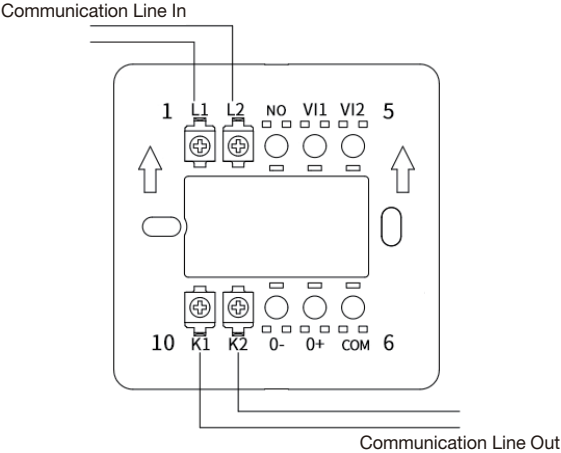
Figure 2: Wiring Diagram

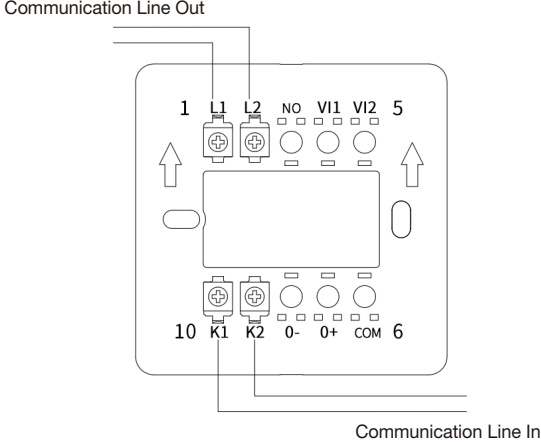

Communication Line Out

Communication Line In

Figure 3: Wiring Diagram

## Mounting

Install the base at the predetermined installation position according to the direction indicated by the installation mark (Figure 1) on the M600-4T terminal base.

Disconnect the power supply of the loop and wire according to the wiring diagram (Figure 2 or Figure 3).

Align the hook on the module with that on the base, press into the mounting base (Figure 4), and the installation is complete.
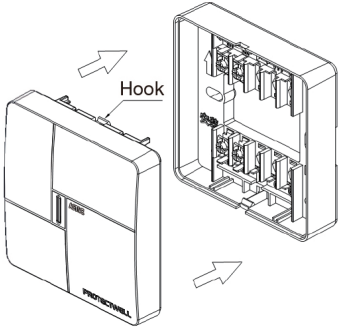


Hook

Figure 4: Mounting

## Remove

As shown in Figure 4, insert the straight screwdriver into the removal hole and pry the base with moderate force in the direction of the arrow until the latch is released. Repeat this operation on the opposite side to remove the module.
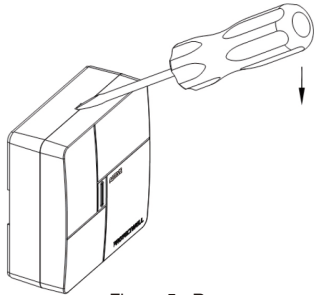
## Ordering Information

**PISO-6:** Intelligent Isolator Module.

**PISO-6/C*:** Intelligent Isolator Module.
(CLIP model for legacy system).

**M600-4T:** Terminal Base for PMM-6/PISO-6.

*NOTE: "/C" is ordering suffix and will not show on product label.*



Figure 5: Remove